

375

**Authors:** S. Madjar, M-B. Tchetgen, R. A. Appell.

**Institution:** Cleveland Clinic Foundation

**Title:** URETHRAL HYPERMOBILITY AND INTRINSIC SPHINCTERIC DYSFUNCTION- SEPARATE ENTITIES OR COEXISTING FACTORS IN WOMEN WITH STRESS URINARY INCONTINENCE?

**Aims of Study:**

Urethral hypermobility (UH) and intrinsic sphincteric deficiency (ISD) have long been regarded as separate entities in the pathophysiology of stress urinary incontinence. The distinction between the two has been traditionally considered important since different treatment modalities are applied for patients with UH and ISD. UH can be assessed by bead chain cystography, ultrasonography, and the Q-tip test. Although criticized for its low sensitivity and specificity in some studies, the Q-tip test when performed correctly is an inexpensive and reliable method of quantifying urethral mobility (1) and is less invasive and time-consuming than other modalities. Using the Q-tip test and valsalva leak point pressure (VLPP) as measures of UH and ISD, respectively, the correlation between UH and ISD were studied to determine whether UH and ISD are different or co-existing factors in the pathophysiology of stress urinary incontinence.

**Methods:** The charts and urodynamic results of 226 patients who underwent an anti-incontinence procedure were retrospectively reviewed. All patients were evaluated preoperatively by a single urologist (R.A.) using a standardized Q-tip measurement technique. Univariate relationships between Q-tip measures and other patient measures were assessed with Spearman rank-correlation coefficients and Wilcoxon rank-sum test. Further analyses adjusted for cystocele status as a covariate by using multiple regression and analysis of covariance (ANCOVA). Significance was assessed using two-tailed test and  $p < 0.05$ .

**Results:**

Q-Tip measurement (both baseline measurement and deviation from baseline or  $\Delta$ Q-tip) were not correlated with patient's age, weight, degree of incontinence (pads used per day), and other patients' characteristics. The only correlation found was between the degree of anterior wall prolapse (cystocele degree) and  $\Delta$ Q-tip ( $r=0.18$ ,  $p=0.001$ ). No correlation was found between delta Q-tip and VLPP or the commonly used cut-off points differentiating UH from ISD (VLPP of 60, 70, and 100 H<sub>2</sub>O).  $\Delta$ Q-tip measurement distributions did not defer among different VLPP cut-off groups.

**Conclusions:**

UH and ISD are co-factors and not separate entities in the pathogenesis of stress urinary incontinence. Future clinical studies categorizing patients according to their clinical and urodynamic characteristics rather than based on a presumed pathophysiological process may shed more light on the true efficacy of various treatment modalities.

**References:**

Karram, Obstet Gynecol 1988;71:807-811

Source of Funding: None